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Extract from Report on the

RESOURCES OF THE MONO BASIN OF CALIFORNIA

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EXTRACT from REPORT

on the

RESOURCES of the MONO BASIN of CALIFORNIA

AND THE COMMERCIAL PROSPECTS OF

THE PROPOSED MONO LAKE RAILROAD.

By

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Grazing, timber and mining are the chief resources of the county at present; the district surrounding Bodie, Lundy and Masonic being well mineralized, and mining is carried on to a considerable extent, though greatly hampered by lack of cheap power and transportation.

The foothills of the Sierras west of Mono Lake contain the well-timbered property of the Mono Lumber Company and that of the Mono Forest Reserve of the United States Government, the combined properties containing practically all the merchantable timber of this section; though there is an urgent need for timber throughout the mining district of this county and the adjoining State of Nevada, comparatively little has been marketed, owing to the lack of transportation, the consumption at present being confined to the mines at Bodie and vicinity.

Mono Lake lies in a basin near the center of the county, at an altitude of 6600 feet, and has an area of nearly 65 square miles. It contains several islands within its boundaries, on the largest of which and at some points on the main land indications of petroleum occur, which are now being investigated, as hereafter described. The Lake has no visible outlet, though several streams of considerable volume flow into it. Its waters contain a number of chemical substances, giving it an unusual density (6° Baume). The presence of soda is very apparent, and several attempts have been made for its extraction in commercial quantities. These efforts have been discontin-

ued so far as could be learned, on account of the lack of cheap transportation of this bulky product to a market. With transportation supplied there is little doubt that a considerable output of this product could be marketed, the Pacific Coast being a large consumer and a small producer of this commodity.

The property proposed to be acquired by the Mono Lumber Company consists of 34 miles of narrow guage railway, extending from Bodie to Mono Mills, the Mono saw-mills with a daily capacity of 40,000 feet, together with all real estate, tenements, a portion of the rolling stock, and all the assets of the former Bodie Railway and Lumber Company, with the exception of some logging equipment, teams, etc., which are to be reserved in the transfer by the present owners. The logging equipment reserved comprises one logging locomotive, 35 flat cars and a number of log wagons and teams. About 25% of the total mileage of the railroad at its northern end consists of heavy grade and two switch-backs forming the descent from Bodie at an altitude of 8790 feet to Warm Springs on the shores of Mono Lake, at an altitude of 6650 feet. From Warm Springs to Mono Mills, its southern terminal, the grade rises gradually for 10 miles. The condition of the road-bed, rails, rolling stock and motive power fairly good and of ample capacity to supply the now strictly local timber market. The buildings and other improvements along the line are in a fair condition, but the business of the road has reached the limit of its development until an outlet to other markets is provided.

MONO LAKE TIMBER

Of all commercial products originating in this section, the timber to be acquired by the Mono Lumber Company and that of the Mono Forest of the U. S. far exceeds any other product in its value and availability for quick returns whenever a wider market can be reached.

Entering the Lake basin from the East about 18 miles from Bodie, the outskirt of the timber tract is reached, consisting of 2900 acres of nut or pinion pine, suitable for cord wood, yielding 20 cords per acre and lying within easy access of the present road at a distance of 2 1-2 to 3 miles. Passing Warm Springs on the Lake shore the proposed junction of the present road with the survey of the projected line and proceeding 10 miles on an easy up grade, the Eastern boundary of the main timber tract was reached on the Southwestern slope of the lake basin.

This forest consists of yellow pine, lodge pole pine and California red fir in the following proportions: 88% yellow pine; 7% lodge pole pine, and 5% fir. Of the three varieties above named the lodge pole pine, (erroneously called tamarack) is the least desirable for the market, though it is used to some extent for smaller mine timbers.

At Mono Mills is situated the saw mill, store, tenements and terminal buildings of the Railroad Company, and in this vicinity for a distance of 2 1-2 miles to 3 miles, much of the timber has been cut, this tract hav-

ing been the source of supply of Bodie and the mines adjacent thereto for 21 years. There are now cut on this tract 3500 cords of wood and 1,500,000 feet of timber, ready for shipment. Beyond this denuded section the virgin timber lands begin, extending for miles to the Southward and Westward, the trees quite evenly distributed throughout the whole area, rising to a height of 80 to 95 feet, averaging 3 1-2 feet in diameter, 5 feet from the ground and carrying their thickness well aloft, so that few trees yield less than four logs per tree. A conservative estimate of the average yield of this whole tract and of the adjoining Government Reserve as well, is 8100 feet of timber per acre, suitable for mine timber or sawed lumber, and in addition 20 cords of wood per acre for fuel purposes. Some experts estimate 10,000 feet per acre, but the estimate above given can be safely used in estimating the yield of this forest. The forest is free from undergrowth of all kinds, eliminating the possibility of disastrous losses by reason of forest fires, and the easy slope of the ground towards the mill, the railroad and the logging road make logging easy and inexpensive. One competent timber expert pronounced it the best situated tract in this respect than any he had ever seen. A contract was made some time since for logging here at a price of $5.95 per 1000, and the contractor states that at this figure he made a profit. Doubtless this was the case at the time, but a logging cost of $10 per 1000 should now be used in making estimates for future operations, though with improved methods the actual cost should be well within this

figure. The cost of sawed lumber is given as follows:

Lumbering,	.85	
Logging	3.75	
Mill Cost	5.47	= $10.07

The cord wood (20 cords per acre) costs $2.00 for cutting and 75¢ for loading, making a total of $2.75 per cord. The timber property to be acquired by the Lumber Company consists of 6580 acres on which timber is uncut; 1014 acres on which the timber is uncut, but to which the title is in some doubt; 5716 acres on which the greater portion of the timber has been cut, and 2900 acres of nut pine timber uncut and suitable for fuel purposes. The yield of timber from all of these tracts is estimated at 60,000,000 feet of mine timber and 250,000 cords of wood. In addition to this supply there are adjoining this tract 40,054 acres of the timbered lands of the Mono Forest Reserve, 30,000 acres of which are within reach of economical logging operations. The timber within this Reserve is similar in character and yield per acre to that of the Mono Lumber Company, forming with this property one large timber reserve, including all the merchantable timber in this locality. Officials in charge of this Reserve estimate that an annual cut of 7,500,000 feet will be permitted for a number of years at a price of not less than $4. per thousand. Sales of government timber are made by 30 day advertisements, inviting bids and specifying the minimum price per 1000 that will be accepted, and stating the term of the contract, which may not exceed five years. Considering the aggregate of this timber reserve, 319,000,000 feet, the annual cut above mentioned could be reasonably expected

for 9 or 10 years, though it can be varied at the expiration of the contract at the discretion of the Forester in charge.

The isolation of this timber belt from other sources of supply, its quality, size and proximity to the markets of central and southern Nevada will enable the owners of this property to control these markets when adequate transportation is secured, and these conditions greatly enhance the value of this timber property.

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WATER POWER SITES ON RUSH CREEK AND LEE VINING CREEK - FALLING INTO MONO LAKE

While water powers are not directly a source of revenue to a railroad their existence in a region where fuel is scarce and expensive and the development of cheap power means an expansion of industries, especially in mining, their presence should not be overlooked as a valuable factor in the development of the region. Bodie, Masonic and Aurora are strictly mining camps, situated 30, 45 and 40 miles respectively from Rush Creek, with a few general stores distributing supplies to the outlying mines. The cost of operation of the mines and mills in these districts is exceedingly high, owing to the high cost of fuel (wood exclusively) and the difficulty in obtaining it at times at any price. The cost of power at the Aurora Mill was stated to be in excess of $30 per horse power per month, and an inspection of the steam plant and motive power, both of which seem designed to waste rather than

to economize fuel, make it probable that the actual cost is even higher than the above named figures. The obvious need of these camps voiced by every mine owner and business man in the territory is cheap power. With this want supplied and better transportation facilities, there would be a very considerable expansion of business throughout this district.

The Standard Consolidated Mining Company of Bodie has been in successful operation for many years, and it is stated to be a constant dividend payer. The success of this Company which has the only record of this kind in this district is to be attributed largely to the cheap power obtained from its own water power installation on a small creek 14 miles distant from the mill, generating 200 to 225 horse power. This was the pioneer hydro-electric plant and transmission line in the State of California, and its continuous operation under all climatic conditions encouraged the development of these powers throughout the State. Two good water powers are within economical distribution of this district, and also of the Tonopah, Goldfield and intervening markets, and requiring only a moderate investment for the development and delivery of power. Rush Creek, emptying into the **west** side of Mono Lake, has an excellent power site 10 miles from its mouth, with a fall of 1300 feet, and could be developed at a moderate construction cost. There are excellent natural storage stations toward the head of this stream in Gem and Agnew Lakes with an area of about 350 acres, which storage could be greatly increased by the construction of a small dam. This is a snow fed stream with a steadier summer stream flow

than the streams having their sources at low elevation. 5000 horse power could be generated at this point without increasing the natural storage capacity of the lake basin.

Lee Vining Creek flows into Mono Lake 8 miles north of Rush Creek. The falls and power site are about 12 miles up the canon from the lake shore, with a good storage basin in Rhein-dollar Lake, at an elevation of nearly 10,000 feet, giving a fall of 1625 feet to the power house site, from which 9000 to 10,000 horse power could be developed, if required. These are both excellent natural locations for the generation of electric power, but their total capacity, 22,000 to 25,000 horse power is far in excess of the requirements of the present market, which consists of the mines and mills at Bodie, Aurora, Masonic and vicinity. The power markets of Tonopah and Goldfield are at present closed to any new power companies, as the principal consumers have contracted for their requirements to the Bishop Creek Power, known as the Nevada Power Company, for a period of 5 years. An initial development of 1500 to 2000 horse power could be installed and the product sold at profitable prices with a growing demand and would be a great factor in the development of this section. To transmit power to Tonopah from these locations would require a transmission line 115 miles in length and Goldfield can be reached within the same distance. The proposition made by the controlling owners of these powers was not acceptable, however, so that their future is uncertain.

RESOURCES OF BRIDGEPORT VALLEY.

Bridgeport Valley, lying about 18 miles North of Mono Lake, has an area of 65 square miles, and in its commercial, grazing and agricultural interests differs from the towns heretofore described as mining camps. Bridgeport, the County-seat of Mono County, is situated about the centre of the Valley, 18 miles from Bodie and about 25 miles from Warm Springs, and is the centre of distribution for this district. This beautiful valley, surrounded by mountains, is watered by two branches of the Walker River, and numerous soda and hot springs. Almost the entire area of the lower basin consists of excellent grazing and hay lands, but the hay crop is limited to the requirements of home consumption, there being no transportation facilities for this product. With transportation, however, this valley would supply the markets of Tonopah and Goldfield, which consume large quantities of hay costing from $25.00 to $30.00 per ton, and could successfully compete in these markets as the nearest originating point for this product. Over 6000 head of fine cattle graze here during each season, and are marketed by driving to Minden, the shipping station from this district, 90 miles distant. Cattlemen estimate that fat cattle lose 90 to 100 pounds each in driving this distance, and that with convenient rail facilities nearly all these cattle would go to the Southern markets by rail. Land here is worth $10 to $12 per acre, and the whole valley gives the impression of a prosperous agricultural and grazing region.

Several large soda springs issue from the foot-

hills near the town of Bridgeport, and by their actions have formed a large deposit of travertine of beautiful and varied colors, and said to be the only deposit of this kind on the continent, there being one other in France. The ledge outcrops for a long distance and has been quarried to some extent, but operations have entirely ceased, owing to lack of transportation; with this lack supplied some freight might be obtained from this source, but its extent is difficult to estimate. Wainscoting of this material is used in the Mills Building in San Francisco and for ceiling purposes in the State Capitol, equaling in beauty and finish the French product. The cost of this wainscoting in place was $3.50 per square foot.

The present freight rate from Minden to Bridgeport is $20.00 per ton, and the volume of inbound freight 9 to 10 tons per day, handled on wagons carrying about 8 tons and requiring 7 to 8 days to make the journey. Goat Ranch Pass affords an entrance to the valley from the north side of Mono Lake through which a railroad survey has already been staked out.

Bodie, Masonic, Bridgeport and Aurora all receive and ship freight from Minden, 80 to 95 miles distant. The present gross volume of inbound freight to all of these points is estimated to be 40 tons per day, and the freight rate $20 per ton to Bodie and Bridgeport, and $16 per ton to Masonic.

Mono Basin in some sections contains excellent grazing land, the best lying along Rush and Lee Vining Creeks, and 1000 to 1200 head of cattle in the finest condi-

tion are annually driven from this section to Bishop, 75 miles distant.

THE MARKETS OF TONOPAH, GOLDFIELD AND VICINITY.

Tonopah and Goldfield are the principal timber markets to be reached by the proposed railroad from Warm Springs to Tonopah Junction, though the zone of economical distribution at existing freight rates and prices extends much further, including the Southern market as far as Bull Frog. The present demand at Tonopah and Goldfield alone furnishes a wide and profitable market. The capacity of the Tonopah market for this year is estimated at 5,000,000 feet of mine timber alone, not including sawed lumber and cord wood. A conservative estimate of the Goldfield consumption is 10,000,000 feet of mine timber this year; Diamond-field and adjacent mining districts are estimated at 3,000,000 feet additional, neither of the above estimates include the consumption of lumber and cordwood.

There are at Goldfield 30 producing shafts with a present weekly output of about 2100 tons. Of these the shafts controlled by the Goldfield Consolidated Company are the most important. This Company owns 395 acres of the best mineralized ground in the camp, with an underground development of 32,354 feet, and a gross production last year of $4,691,404. Included in their properties are the famous Combination and Mohawk. The 50 to 150 foot vein of the Combination producing $40 to $50 ore, and the 40 foot vein of the Mohawk in $50 to $100 ore indicate a large output from these shafts alone. This Com-

pany has a 20 stamp mill, with a capacity of 90 tons in operation, and a 100 stamp mill under construction, which is expected to be in operation by January 1, 1909, handling 500 tons of ore per day. On the completion of this mill there will be 400 stamps in operation in this camp, with an estimated daily capacity of 1500 tons. Pending the completion of this mill the Goldfield Con. is mining only sufficient ore to supply the small mill, but is continuing development work and preparing for a large output when it can be milled. The management and equipment of these mines is excellent, and the ore bodies of great size, so that they may be reasonably expected to continue as producers for a considerable number of years. After completing the mill and increasing the output to its capacity the annual timber requirement of this Company alone is estimated to be 10,000,000 feet, their order for this year being 6,000,000 feet. The country rock in this district requires timbering on practically all the stopes and levels in constantly increasing quantities as the ore is removed. Oregon supplies this market at present with Oregon fir and sugar pine, cut to square timber, though some round timber is used in 30 to 40 foot lengths, seven to ten inches in diameter. The round timber is usually Tamarack and seems to be considered as good as the pine timbers. The Oregon square timber costs $36 to $40 per 1000 in car-load lots, and the round timber 16¢ per lineal foot.

Each ton of ore now mined in this district requires timber costing 50¢ per ton. As more of the ore is removed the timber requirement increases, and at normal production in two years the timber cost is expected

to reach 80¢ per ton mined.

Some small sales of mine timber were made in this market during the depression at $28.50 per 1000, the lowest prices known, and these sales are said to have netted a loss to the shipper. From the best information obtainable the cost of Oregon fir is $32 to $34 per 1000, delivered here via San Diego. The Oregon product is somewhat closer in grain and heavier in weight than the timber of the Mono tract, weighing 3200 to 3500 pounds per 1000, while the Mono Lake timber will average from 2800 to 3000 pounds per 1000. Twelve to fourteen thousand cords of wood for fuel are annually used in this locality, costing from $12., $14. and at times $15 per cord.

The consumption of Bodie is from 500,000 to 700,000 feet of mine timber, and 1500 cords of wood annually, selling there at $30 per 1000 for timber and $8 per cord for wood. The cord wood when green will weigh 2300 to 2500 pounds per cord.

The Verdi Lumber Company, located at Verdi, 296 miles north of Goldfield, formerly shipped considerable lumber to the Tonopah and Goldfield market, but owing to the scarcity of timber and increasing logging cost, they find it difficult to compete with the Oregon product and are now manufacturing the greater part of the cut into sawed lumber and box shooks. This is a modern plant, well equipped in all respects, but on account of increasing scarcity and longer hauls the mill cost is now $16 per 1000. The logs here average only 19 inches in diameter, but nevertheless four logs, containing 1000 to 1050 feet of lumber

are usually obtained from each tree. The annual cut is now 12 1-2 per cent of the total supply owned by this Company, though there is an additional supply to be had from the Government Reserve at a stumpage cost of $4 per 1000. All other timber in this section is said to be controlled by the Hobart Lumber Company, manufacturing lumber exclusively. Under existing conditions, this district cannot be considered as a serious competitor to the Mono Lake product.

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ORGANIZATION PLAN OF MONO RAILROAD COMPANY

It is proposed to incorporate the Mono Railroad Company under the laws of the State of Delaware, with a capitalization of $1,500,000 of common stock and an authorized bond issue of $1,500,000. $1,000,000 of these bonds to be issued for the construction of the road from Tonopah Junction to Mono Lake, the remainder to be held in the Treasury of the Company for its future requirements.

The incorporation of the Railroad Company under the laws of Delaware gives it an important advantage over a corporation locally organized under Nevada or California State laws. Reference to the section of this Report bearing on the legal side of this proposition will show that a corporation foreign to Nevada or California has all the powers of a corporation locally incorporate, and in addition in the defence of suits for damages and other legal actions wherein verdicts are likely to be influenced by local prejudice can appeal such cases to the Circuit Court of the United States, beyond this sphere of influence,

which a local corporation cannot due, hence the incorporation, as above described, is most desirable.

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Assuming a construction cost of $1,000,000 for the proposed road, profits from the sales of timber at 25% less than prevailing prices during a period of ten years should exceed the total construction cost of this line, and the transportation of the timber and other products, fostered by railroad facilities, would enable the railroad to care for a large portion of its own obligations.

The tenor of this report is to favorably recommend this enterprise as a conservative one, having tangible assets, few speculative features and offering an investment which promises both security and profit.

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